AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): An encoded moving picture data conversion device for converting encoded moving picture data compression-encoded by using inter-frame prediction, and for outputting converted data as encoded output data capable of being subjected to special reproducing, the device comprising:

first storage means for storing said inputted encoded moving picture data;

decoding means for decoding said inputted encoded moving picture data to decoded data;

re-encoding means for re-encoding said decoded data of a picture frame in a moving picture sequence, in an intra-frame encoding mode in order to generate intra-frame re-encoded data;

second storage means for storing re-encoded data, said re-encoded data including said intra-frame re-encoded data; and

selection means for making a selection of data for each picture frame, frame-by-frame, the data being selected from said encoded moving picture data stored in said first storage means and said re-encoded data stored in said second storage means, and for outputting the selected data as said encoded output data capable of being subjected to said special reproducing.

2. (original): The encoded moving picture data conversion device according to claim 1,

wherein said re-encoding means comprises:

means for re-encoding said decoded data of picture frames as many as J following after the picture frame re-encoded in the intra-frame encoding mode, by using inter-frame prediction in order to generate inter-frame re-encoded data, where J is an integer greater than zero;

means for measuring a picture quality of re-encoded picture frames, said re-encoded picture frames including the intra-frame re-encoded picture frame and one or more inter-frame re-encoded picture frames; and

means for controlling a value of said J in accordance with said picture quality, and

wherein said selection means comprises means for, if selecting said intra-frame re-encoded data, also selecting said inter-frame re-encoded data of the picture frames as many as J following after said intra-frame re-encoded data.

3. (original): The encoded moving picture data conversion device according to claim 1,

wherein said re-encoding means comprises:

means for skipping picture frames as many as (K-1) after the intra-frame re-encoded picture frame, where K is an integer greater than one;

means for re-encoding said decoded data of a picture frame after K frames from said intra-frame re-encoded picture frame, by using inter-frame prediction with reference to said intra-frame re-encoded picture frame in order to generate inter-frame re-encoded data;

means for calculating the number of frames constituted of said input encoded moving picture data corresponding to said intra-frame re-encoded data in code amount; and

means for controlling a value of said K in accordance with the number of frames calculated, and

wherein said selection means comprises means for, if selecting said intra-frame re-encoded data, skipping the frames as many as (K-1) following after said intra-frame re-encoded picture frame, and for selecting said inter-frame re-encoded data after the K frames from said intra-frame re-encoded picture frame.

4. (original): The encoded moving picture data conversion device according to claim 1,

wherein said re-encoding means comprises means for re-encoding said decoded data of frames at L-frame intervals in an intra-frame encoding mode to generate intra-frame re-encoded data, in such a way that re-encoded data in each frame occupy at least a part of the frame and re-encoded data gathered from frames as many as M cover an entire frame area, where L is an integer greater than one and M is an integer greater than one, and

wherein said selection means comprises means for selecting only said intra-frame re-encoded data in response to a high-speed reproducing request, and for outputting said selected re-encoded data as said encoded data capable of being subjected to said special reproducing.

5. (currently amended): An encoded moving picture data conversion method for converting encoded moving picture data compression-encoded by using inter-frame prediction, and for outputting converted data as encoded output data capable of being subjected to special reproducing, the method comprising:

a first storage step of storing said inputted encoded moving picture data;

a decoding step of decoding said inputted encoded moving picture data to decoded data;

a re-encoding step of re-encoding said decoded data of a picture frame in a moving picture sequence, in an intra-frame encoding mode in order to generate intra-frame re-encoded data;

a second storage step of storing re-encoded data, said re-encoded data including said intra-frame re-encoded data; and

a selection step of ~~marking~~ making a selection of data for each picture frame, frame-by-frame, the data being selected from said encoded moving picture data stored in said first storage step and said re-encoded data stored in said second storage step, and for outputting the selected data as said encoded output data capable of being subjected to said special reproducing.

6. (original): The encoded moving picture data conversion method according to claim 5,

wherein said re-encoding step comprises:

a step of re-encoding said decoded data of picture frames as many as J following after the picture frame re-encoded in the intra-frame encoding mode, by using inter-frame prediction in order to generate inter-frame re-encoded data, where J is an integer greater than zero;

a step of measuring a picture quality of re-encoded picture frames, said re-encoded picture frames including the intra-frame re-encoded picture frame and one or more inter-frame re-encoded picture frames; and

a step of controlling a value of said J in accordance with said picture quality, and

wherein said selection step comprises a step of, if selecting said intra-frame re-encoded data, also selecting said inter-frame re-encoded data of the picture frames as many as J following after said intra-frame re-encoded data.

7. (original): The encoded moving picture data conversion method according to claim 5,

wherein said re-encoding step comprises:

a step of skipping picture frames as many as (K-1) after the intra-frame re-encoded picture frame, where K is an integer greater than one;

a step of re-encoding said decoded data of a picture frame after K frames from said intra-frame re-encoded picture frame, by using inter-frame prediction with reference to said intra-frame re-encoded picture frame in order to generate inter-frame re-encoded data;

a step of calculating the number of frames constituted of said input encoded moving picture data corresponding to said intra-frame re-encoded data in code amount; and

a step of for controlling a value of said K in accordance with the number of frames calculated, and

wherein said selection step comprises a step of, if selecting said intra-frame re-encoded data, skipping the frames as many as (K-1) following after said intra-frame re-encoded picture frame, and for selecting said inter-frame re-encoded data after the K frames from said intra-frame re-encoded picture frame.

8. (original): The encoded moving picture data conversion method according to claim 5,

wherein said re-encoding step comprises a step for re-encoding said decoded data of frames at L-frame intervals in an intra-frame encoding mode to generate intra-frame re-encoded data, in such a way that re-encoded data in each frame occupy at least a part of the frame and re-encoded data gathered from frames as many as M cover an entire frame area, where L is an integer greater than one and M is an integer greater than one, and

wherein said selection step comprises a step of selecting only said intra-frame re-encoded data in response to a high-speed reproducing request, and for outputting said selected re-encoded data as said encoded data capable of being subjected to said special reproducing.

9. (previously presented): An encoded moving picture data conversion apparatus for converting encoded moving picture data compressed encoded by using inter-frame prediction to converted data, the apparatus comprising:

decoding means for decoding said inputted encoded moving picture data to obtain decoded data;

re-encoding means for re-encoding said decoded data at an intra-frame encoding mode in order to generate intra-frame re-encoded data;

replacing means for replacing a portion of said inputted encoded moving picture data by said re-encoded data, for outputting the replaced data as said converted data.

10. (previously presented): An encoded moving picture data conversion method for converting encoded moving picture data compressed-encoded by using inter-frame prediction to converted data, the method comprising:

a decoding step of decoding said inputted encoded moving picture data to obtain decoded data;

a re-encoding step of re-encoding said decoded data at an intra-frame encoding mode in order to generate intra-frame re-encoded data;

a replacing step of replacing a portion of said inputted encoded moving picture data by said re-encoded data, for outputting the replaced data as said converted data.